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25 MAY 2001

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Feighner, Scott D. *et al.*

Serial No.: 09/719,485

Case No.: 20251P

Art Unit:

Unassigned

Filed: December 12, 2000

Examiner:

Unassigned

For: CLONING AND IDENTIFICATION OF THE
MOTILIN RECEPTOR

Assistant Commissioner for Patents
Washington, D.C. 20231

RESPONSE TO COMPLY WITH SEQUENCE REQUIREMENT

Sir:

The following statements are made as required by 37 C.F.R. § 1.821(f).

I hereby state that the contents of the paper and computer readable copies of the Sequence Listing, submitted in accordance with 37 C.F.R. § 1.821 (c) and (e), respectively, are the same and contain no new matter.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date appearing below.

By **MERCK & CO., INC.** Date 5/23/2001

Date: May 23, 2001

Respectfully submitted,

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SEQUENCE LISTING

<110> Feighner, Scott D.
 Patchett, Arthur A.
 Tan, Carina
 McKee, Karen Kulju
 MacNeil, Douglas
 Howard, Andrew D.
 Pong, Sheng-Shung
 Smith, Roy G.

<120> CLONING AND IDENTIFICATION OF THE
 MOTILIN RECEPTOR

<130> 20251P

<140> 09/719,485

<141> 2000-12-12

<150> PCT/US99/12773

<151> 1999-06-08

<150> 60/089,098

<151> 1998-06-12

<160> 15

<170> FastSEQ for Windows Version 4.0

<210> 1

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<211> 1239

<212> DNA

<213> Homo sapiens

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gtgaccgctg	tgtgcctgtg	cctgttcgtc	gtcggggtga	gcggcaacgt	ggtgaccgtg	180
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gccgtgtccg	acctactcat	cctgctcggg	ctgccgttcg	acctgtaccg	cctctggcgc	300
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<210> 3

<211> 412

<212> PRT

<213> Homo sapiens

<400> 3

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 20          25          30
Phe Pro Leu Gly Ala Leu Val Pro Val Thr Ala Val Cys Leu Cys Leu
 35          40          45
Phe Val Val Gly Val Ser Gly Asn Val Val Thr Val Met Leu Ile Gly
 50          55          60
Arg Tyr Arg Asp Met Arg Thr Thr Thr Asn Leu Tyr Leu Gly Ser Met
 65          70          75          80
Ala Val Ser Asp Leu Leu Ile Leu Leu Gly Leu Pro Phe Asp Leu Tyr
 85          90          95
Arg Leu Trp Arg Ser Arg Pro Trp Val Phe Gly Pro Leu Leu Cys Arg
 100         105         110
Leu Ser Leu Tyr Val Gly Glu Gly Cys Thr Tyr Ala Thr Leu Leu His
 115         120         125
Met Thr Ala Leu Ser Val Glu Arg Tyr Leu Ala Ile Cys Arg Pro Leu
 130         135         140
Arg Ala Arg Val Leu Val Thr Arg Arg Arg Val Arg Ala Leu Ile Ala
 145         150         155         160
Val Leu Trp Ala Val Ala Leu Leu Ser Ala Gly Pro Phe Leu Phe Leu
 165         170         175
Val Gly Val Glu Gln Asp Pro Gly Ile Ser Val Val Pro Gly Leu Asn
 180         185         190
Gly Thr Ala Arg Ile Ala Ser Ser Pro Leu Ala Ser Ser Pro Pro Leu
 195         200         205
Trp Leu Ser Arg Ala Pro Pro Pro Ser Pro Pro Ser Gly Pro Glu Thr
 210         215         220
Ala Glu Ala Ala Ala Leu Phe Ser Arg Glu Cys Arg Pro Ser Pro Ala
 225         230         235         240
Gln Leu Gly Ala Leu Arg Val Met Leu Trp Val Thr Thr Ala Tyr Phe
 245         250         255
Phe Leu Pro Phe Leu Cys Leu Ser Ile Leu Tyr Gly Leu Ile Gly Arg
 260         265         270
Glu Leu Trp Ser Ser Arg Arg Pro Leu Arg Gly Pro Ala Ala Ser Gly
 275         280         285
Arg Glu Arg Gly His Arg Gln Thr Val Arg Val Leu Leu Val Val Val
 290         295         300
Leu Ala Phe Ile Ile Cys Trp Leu Pro Phe His Val Gly Arg Ile Ile
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Tyr Ile Asn Thr Glu Asp Ser Arg Met Met Tyr Phe Ser Gln Tyr Phe
 325         330         335

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Asn Ile Val Ala Leu Gln Leu Phe Tyr Leu Ser Ala Ser Ile Asn Pro
      340                      345                      350
Ile Leu Tyr Asn Leu Ile Ser Lys Lys Tyr Arg Ala Ala Ala Phe Lys
      355                      360                      365
Leu Leu Leu Ala Arg Lys Ser Arg Pro Arg Gly Phe His Arg Ser Arg
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Asp Thr Ala Gly Glu Val Ala Gly Asp Thr Gly Gly Asp Thr Val Gly
      385                      390                      395                      400
Tyr Thr Glu Thr Ser Ala Asn Val Lys Thr Met Gly
      405                      410

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<210> 4
 <211> 1390
 <212> DNA
 <213> Homo sapiens

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<210> 5
 <211> 386
 <212> PRT
 <213> Homo sapiens

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      20                      25                      30
Phe Pro Leu Gly Ala Leu Val Pro Val Thr Ala Val Cys Leu Cys Leu
      35                      40                      45
Phe Val Val Gly Val Ser Gly Asn Val Val Thr Val Met Leu Ile Gly

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85	90	95
Arg Leu Trp Arg Ser Arg Pro Trp Val Phe Gly Pro Leu Leu Cys Arg		100
100	105	110
Leu Ser Leu Tyr Val Gly Glu Gly Cys Thr Tyr Ala Thr Leu Leu His		115
115	120	125
Met Thr Ala Leu Ser Val Glu Arg Tyr Leu Ala Ile Cys Arg Pro Leu		130
130	135	140
Arg Ala Arg Val Leu Val Thr Arg Arg Arg Val Arg Ala Leu Ile Ala		145
145	150	155
Val Leu Trp Ala Val Ala Leu Leu Ser Ala Gly Pro Phe Leu Phe Leu		160
165	170	175
Val Gly Val Glu Gln Asp Pro Gly Ile Ser Val Val Pro Gly Leu Asn		180
180	185	190
Gly Thr Ala Arg Ile Ala Ser Ser Pro Leu Ala Ser Ser Pro Pro Leu		195
195	200	205
Trp Leu Ser Arg Ala Pro Pro Ser Pro Pro Ser Gly Pro Glu Thr		210
210	215	220
Ala Glu Ala Ala Ala Leu Phe Ser Arg Glu Cys Arg Pro Ser Pro Ala		225
225	230	235
Gln Leu Gly Ala Leu Arg Val Met Leu Trp Val Thr Thr Ala Tyr Phe		240
245	250	255
Phe Leu Pro Phe Leu Cys Leu Ser Ile Leu Tyr Gly Leu Ile Gly Arg		260
260	265	270
Glu Leu Trp Ser Ser Arg Arg Pro Leu Arg Gly Pro Ala Ala Ser Gly		275
275	280	285
Arg Glu Arg Gly His Arg Gln Thr Val Arg Val Leu Arg Lys Trp Ser		290
290	295	300
Arg Arg Gly Ser Lys Asp Ala Cys Leu Gln Ser Ala Pro Pro Gly Thr		305
305	310	315
Ala Gln Thr Leu Gly Pro Leu Pro Leu Leu Ala Gln Leu Trp Ala Pro		320
325	330	335
Leu Pro Ala Pro Phe Pro Ile Ser Ile Pro Ala Ser Thr Arg Arg Gly		340
340	345	350
Gly Gly Ser Gly Ile Tyr Asn Leu Leu Val Ala Leu Pro Arg Trp Gln		355
355	360	365
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370	375	380
Val Leu		
385		

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 <212> DNA
 <213> Spheroides nephelus

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gtcacgggtca tctgcatacct catcttcgtg gtcggcgtga ccggcaacac catgaccatc	180
ctcatcatcc agtacttcaa ggacatgaag accaccacca acctgtacct gtccagcatg	240
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<210> 7

<211> 363

<212> PRT

<213> Spheroides nephelus

<400> 7

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20      25      30
Phe Pro Ala Ser Thr Leu Ile Pro Val Thr Val Ile Cys Ile Leu Ile
35      40      45
Phe Val Val Gly Val Thr Gly Asn Thr Met Thr Ile Leu Ile Ile Gln
50      55      60
Tyr Phe Lys Asp Met Lys Thr Thr Thr Asn Leu Tyr Leu Ser Ser Met
65      70      75      80
Ala Val Ser Asp Leu Val Ile Phe Leu Cys Leu Pro Phe Asp Leu Tyr
85      90      95
Arg Leu Trp Lys Tyr Val Pro Trp Leu Phe Gly Glu Ala Val Cys Arg
100     105     110
Leu Tyr His Tyr Ile Phe Glu Gly Cys Thr Ser Ala Thr Ile Leu His
115     120     125
Ile Thr Ala Leu Ser Ile Glu Arg Tyr Leu Ala Ile Ser Phe Pro Leu
130     135     140
Arg Ser Lys Val Met Val Thr Arg Arg Arg Val Gln Tyr Ile Ile Leu
145     150     155     160
Ala Leu Trp Cys Phe Ala Leu Val Ser Ala Ala Pro Thr Leu Phe Leu
165     170     175
Val Gly Val Glu Tyr Asp Asn Glu Thr His Pro Asp Tyr Asn Thr Gly
180     185     190
Gln Cys Lys His Thr Gly Tyr Ala Ile Ser Ser Gly Gln Leu His Ile
195     200     205
Met Ile Trp Val Ser Thr Thr Tyr Phe Phe Cys Pro Met Leu Cys Leu
210     215     220
Leu Phe Leu Tyr Gly Ser Ile Gly Cys Lys Leu Trp Lys Ser Lys Asn
225     230     235     240
Asp Leu Gln Gly Pro Cys Ala Leu Ala Arg Glu Arg Ser His Arg Gln
245     250     255
Thr Val Lys Ile Leu Val Val Val Val Leu Ala Phe Ile Ile Cys Trp
260     265     270

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      275                      280                      285
Asp Thr Ala Met Leu Ser Gln Asn Phe Asn Met Ala Ser Met Val Leu
      290                      295                      300
Cys Tyr Leu Ser Ala Ser Ile Asn Pro Val Val Tyr Asn Leu Met Ser
      305                      310                      315                      320
Arg Lys Tyr Arg Ala Ala Ala Lys Arg Leu Phe Leu Leu His Gln Arg
      325                      330                      335
Pro Lys Pro Ala His Arg Gly Gln Gly Gln Phe Cys Met Ile Gly His
      340                      345                      350
Ser Pro Thr Leu Asp Glu Ser Leu Thr Gly Val
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<210> 8
<211> 27
<212> DNA
<213> Artificial Sequence

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<220>
<223> PCR Primer

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<400> 8
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27

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<210> 9
<211> 33
<212> DNA
<213> Artificial Sequence

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<220>
<223> PCR Primer

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<400> 9
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33

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<210> 10
<211> 30
<212> DNA
<213> Artificial Sequence

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<220>
<223> PCR Primer

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<400> 10
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30

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<210> 11
<211> 900
<212> DNA
<213> Homo sapiens

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gtgaccgctg tgtgcctgtg cctgttcgtc gtcggggtga gcggcaacgt ggtgaccgtg      180

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tcgcggccct ggggtgttcg ggcgctgctc tgccgcctgt ccctctacgt gggcgagggc 360
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<210> 12

<211> 300

<212> PRT

<213> Homo sapiens

<400> 12

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20          25          30
Phe Pro Leu Gly Ala Leu Val Pro Val Thr Ala Val Cys Leu Cys Leu
35          40          45
Phe Val Val Gly Val Ser Gly Asn Val Val Thr Val Met Leu Ile Gly
50          55          60
Arg Tyr Arg Asp Met Arg Thr Thr Thr Asn Leu Tyr Leu Gly Ser Met
65          70          75          80
Ala Val Ser Asp Leu Leu Ile Leu Leu Gly Leu Pro Phe Asp Leu Tyr
85          90          95
Arg Leu Trp Arg Ser Arg Pro Trp Val Phe Gly Pro Leu Leu Cys Arg
100         105         110
Leu Ser Leu Tyr Val Gly Glu Gly Cys Thr Tyr Ala Thr Leu Leu His
115         120         125
Met Thr Ala Leu Ser Val Glu Arg Tyr Leu Ala Ile Cys Arg Pro Leu
130         135         140
Arg Ala Arg Val Leu Val Thr Arg Arg Arg Val Arg Ala Leu Ile Ala
145         150         155         160
Val Leu Trp Ala Val Ala Leu Leu Ser Ala Gly Pro Phe Leu Phe Leu
165         170         175
Val Gly Val Glu Gln Asp Pro Gly Ile Ser Val Val Pro Gly Leu Asn
180         185         190
Gly Thr Ala Arg Ile Ala Ser Ser Pro Leu Ala Ser Ser Pro Pro Leu
195         200         205
Trp Leu Ser Arg Ala Pro Pro Ser Pro Pro Ser Gly Pro Glu Thr
210         215         220
Ala Glu Ala Ala Ala Leu Phe Ser Arg Glu Cys Arg Pro Ser Pro Ala
225         230         235         240
Gln Leu Gly Ala Leu Arg Val Met Leu Trp Val Thr Thr Ala Tyr Phe
245         250         255
Phe Leu Pro Phe Leu Cys Leu Ser Ile Leu Tyr Gly Leu Ile Gly Arg
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Glu Leu Trp Ser Ser Arg Arg Pro Leu Arg Gly Pro Ala Ala Ser Gly
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 <212> DNA
 <213> Homo sapiens

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 <212> DNA
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 ctctgcaact tttctatctg agcgcattcta tcaaccctaat cctctacaac ctcatttcaa 180
 agaagtacag agcggcggcc tttaaactgc tgctcgcaag gaagtccagg ccgagaggct 240
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 cctccaccgc cgtggtggt ggttctggca tttataattt gctggttgcc cttccacggt 540
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 Ser Gln Tyr Phe Asn Ile Val Ala Leu Gln Leu Phe Tyr Leu Ser Ala
 35 40 45
 Ser Ile Asn Pro Ile Leu Tyr Asn Leu Ile Ser Lys Lys Tyr Arg Ala
 50 55 60
 Ala Ala Phe Lys Leu Leu Ala Arg Lys Ser Arg Pro Arg Gly Phe
 65 70 75 80
 His Arg Ser Arg Asp Thr Ala Gly Glu Val Ala Gly Asp Thr Gly Gly
 85 90 95
 Asp Thr Val Gly Tyr Thr Glu Thr Ser Ala Asn Val Lys Thr Met Gly
 100 105 110
 Arg Lys Trp Ser Arg Arg Gly Ser Lys Asp Ala Cys Leu Gln Ser Ala
 115 120 125
 Pro Pro Gly Thr Ala Gln Thr Leu Gly Pro Leu Pro Leu Leu Ala Gln
 130 135 140

Leu	Trp	Ala	Pro	Leu	Pro	Ala	Pro	Phe	Pro	Ile	Ser	Ile	Pro	Ala	Ser
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Thr	Arg	Arg	Gly	Gly	Gly	Ser	Gly	Ile	Tyr	Asn	Leu	Leu	Val	Ala	Leu
			165						170					175	
Pro	Arg	Trp	Gln	Asn	His	Leu	His	Lys	His	Gly	Arg	Phe	Ala	Asp	Asp
			180					185					190		
Val	Leu	Leu	Ser	Val	Leu										
			195												